

THE ELECTRICAL WORLD

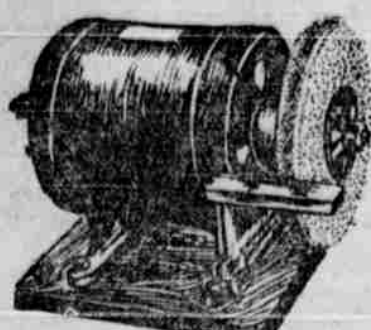
MOTOR DRIVES TOOL GRINDER

Electrical Device Eliminates All Complicated Belts and Gears—Current Started by Switch.

An electrical device for grinding tools in a shop or factory is shown in the illustration.

In this grinder there are no complicated belts or gears, the emery wheel being connected directly to the motor.

Current is consumed only when actual work is being done, as the grinder may be stopped or started by



Motor Drives Grinder.

the turn of a switch. Full speed will be attained in about one second after the current has been switched on. Any standard grinding wheel may be attached to the machine.

HAS LIGHT-RAYS LIKE SUN

New Incandescent Lamp Attachment Ideal for Matching of Colors—Mazda Lamp Is Used.

To overcome the difficulty of matching colors by artificial light, an apparatus has been designed which will give the true white light of the northern sun.

An ordinary Mazda lamp is used and the light therefrom is transmitted through a number of strips of different colored glass, placed side by side.

After the light has passed through these strips it goes through a mixer or diffuser. The size of each one of these colored strips may be fixed according to the quality of the light, so that the result of all is a perfectly white light.

It is said that this arrangement has made the resultant light so close to that of daylight that in cases where colors are to be matched by the light of the sun they match equally well by this artificial light.

Work where exact color matching is involved can be carried on for long periods of cloudy weather with as much satisfaction as in ordinary daylight.

ELECTRIC MAIL BOX ALARM

Opening Receptacle to Deposit Letter Signals Fact—Also Guards Against Any Thief.

A mail box arranged to ring a bell when the postman deposits a letter in addition to the uses of electricity for signaling. Besides notifying that mail is being dropped into the box,



Mail Box Alarm.

the bell will also ring should anyone attempt to open the box and remove the mail, says Popular Electricity. A battery in the box supplies the current and the bell may be located where necessary in order to be heard. Opening the box closes the battery and bell circuit.

Control of Torpedoes. A German inventor recently gave a thoroughly successful demonstration of the effectiveness of an electric system for the control of torpedoes and boats from a distant point. While the craft seemed to be under the absolute control of the operator, it was also shown that it was proof against interference from electric waves generated elsewhere within its sphere of influence.

The boat moved forward and back, turned right and left, described figures, was guided to definite points, rang bells, exhibited flags and lights, fired guns, etc., giving proof of effective control. The mechanism is, however, far from perfect; the speed is not great, the responses to the operator's will are hesitating and inexact and the range is limited to a few score yards. The exhibition, in fact, was notable only as the beginning of the development of a mechanism of possible great importance.

Pocket Telephones for the Police. A new and interesting telephone system has been installed by the police department of Berlin to facilitate the calling of branch stations and headquarters. All the members of the department, uniformed and secret service, are provided with pocket telephones set so compact as to be easily carried in the pocket or in a small leather holder attached to a strap. Contact stations are scattered over the city, on fence posts, on the walls of buildings and on trees in the parks. The connection is established by merely plugging the contact station.

Electric Driven Collar. The United States government has given permission for the equipment of the 20,000-ton collier Jupiter with electric motors to drive the propellers.

The installation is now being put in at the Mare Island navy yard and will, it is hoped, answer many questions regarding direct motor drive for propellers of large vessels.

ELECTRICITY TO MOVE HILLS

Use of High Water Pressure Found More Economical and Quicker Than Steam Shovels.

In building both Seattle and Portland it was necessary to remove from the face of the earth several sizable hills. This work was done for the most part by hydraulic power. That is, the hills, composed mostly of dirt, were washed away by powerful streams of water.

At Portland, Ore., electrical power, driving huge centrifugal pumps, lifted water from Guild's lake 400 feet uphill and hurled it through 4½-inch nozzles against the great piles of dirt and gravel. In this way the hills are washed away much quicker and cheaper than they could be cut up and carted away with steam shovels and dirt trains.

While the hills at Seattle were being washed away in this same manner a workman slipped and fell directly in front of one of the streams of water. In a flash he was hurled against the embankment 30 feet away. When picked up he was unconscious and had sustained severe internal injuries besides having several broken ribs.

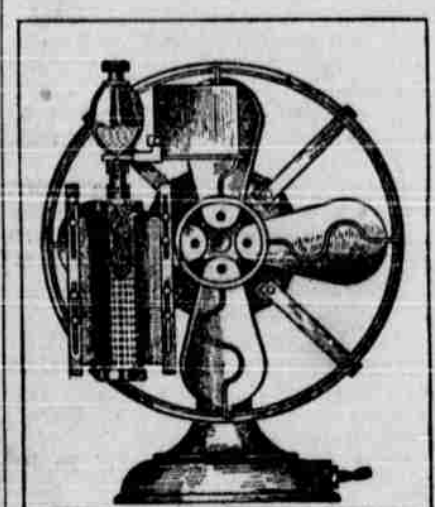
WAFES PERFUME ON AUDIENCE

Device Attached to Electric Fan with Reservoir for Fluid Patented by Chicago Man.

The suggestion that perfume be wafted over the audience in a theater has been carried out crudely by means of a large atomizer in the hands of an usher.

An apparatus for doing this automatically when attached to an electric fan and for diffusing the vapor of any fluid is the subject of a patent issued to Harry W. Forbes and Frederick Lunick, Chicago, Ill.

The device attached to the fan consists of a reservoir for the fluid over a perforated receptacle containing an absorbent material, says the Popular Electricity. Attached to a valve stem under the reservoir is a wing against



Vapor Diffusing Device.

which some of the air from the fan is directed. This crowds the wing over and opens the valve permitting the gradual escape of the fluid into the receptacle below there to be blown away. When the fan stops a spring brings the wing to an upright position and closes the valve.

Electric Hoist. The electric hoist has almost completely superseded other forms of service in mines, and collieries where electric service can be obtained. The advantages of the electric type of hoist are becoming more widely appreciated by engineers of coal mining companies.

ELECTRICAL NOTES

In Manchuria there are thirteen telephone exchanges.

Uruguay has decided to take over telephones as a state monopoly.

Paris is now in direct telephone communication with Madrid, 1,000 miles.

A new electric soldering iron is stationary, articles to be soldered being held against it.

The automatic telephone service is a success in Havana, where there are 7,000 subscribers.

Peking, the only capital in the wide world without a street car system, soon is to have an electric line.

Through telephone service between New York and Los Angeles will probably be established by next November. Berlin employs more than 100 storage battery driven electrical machines literally to scrub its well-kept streets.

Utilizing a current from a magnet or batteries, an inventor has brought out an electrically heated steering wheel for automobiles.

A power-driven rotary hoof parer to take the place of the horse-shoer's tongue, knife and rasp has been invented by a Nevada man.

It is thought that electric lights will ultimately take the place of all others in lighthouses. The difficulties in the way are gradually overcome.

On an automobile wireless outfit built for the Austrian army the motor used to propel the car may also be utilized to drive the electric generator.

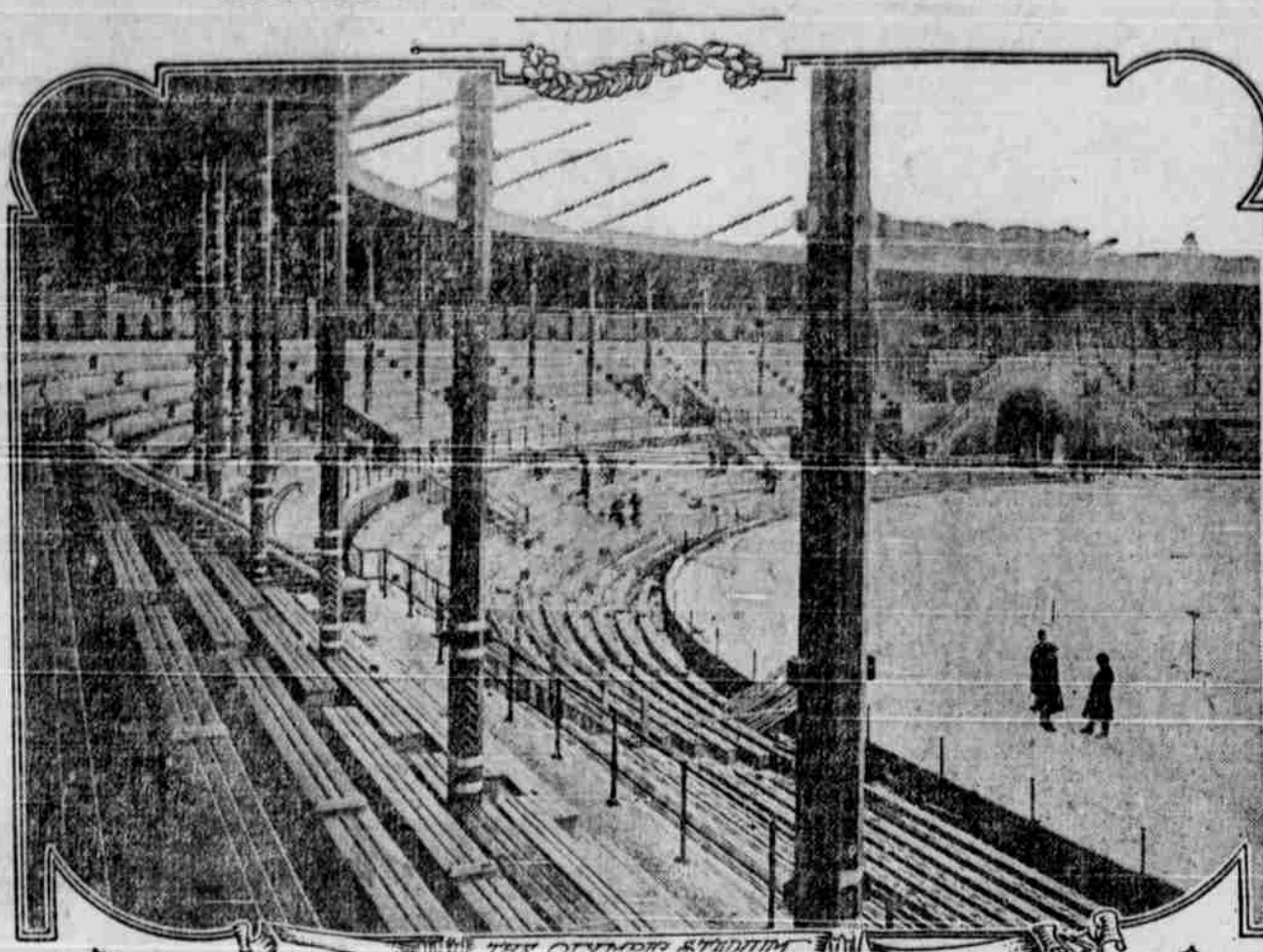
A storage battery illuminated electric sign has been invented to be worn on the arm of a person selling refreshments in theaters and other public places.

Primarily for the use of physicians, a dynamo transformer has been invented in France which will turn out currents of various tensions and strengths at the same time if desired.

Berlin employs more than one hundred storage battery driven electrical machines literally to scrub its well kept streets.

War on Deadly Fly. Ozone is to take a prominent part in the campaign against the deadly house fly. All disagreeable odors, such as attract flies, are caused by tiny particles of decaying organic or vegetable matter floating in the air. Ozone attacks and burns up these particles, removing the odor and destroying the food which would nourish flies.

STADIUM FOR OLYMPIC GAMES AT STOCKHOLM



THE immense stadium for the Olympic games, which are to be held in Stockholm, Sweden, this summer, is now practically completed. The photograph shows a portion of the grand stand built to accommodate the tremendous crowds that are expected.

SHIRKS ARMY DUTY

German Crown Prince Not Enthusiastic About War.

Kaiser's Heir Is Attacked by the Press—Is Colonel of Famous Regiment—Nearly Always Absent from Military Service.

Berlin, Germany.—The article attacking the crown prince for neglect of military duties, which is attracting great attention, being reproduced in many leading newspapers, appeared originally in Der Tuerner, a monthly review, according to a Berlin dispatch. It was written by Herr Guenther von Viebrogge, a retired officer.

The article observes that up to the time when the Kaiser appointed his heir to the colonelcy of the famous Death's Head hussars at Danzig last September the crown prince had never done any military service worth mentioning. It was hoped that the command would at last fill the prince, in whose veins the blood of so many warriors flowed, with genuine enthusiasm for the profession of arms.

"Up to the present, however," continues the article, "the hopes aroused by the transfer to Danzig have remained unfulfilled. The crown prince is absent far too much on leave. Indeed, one might ask when he is at the head of his regiment at all."

"Immediately after his appointment the august young gentleman went traveling for four weeks, principally to hunt. Soon after his return we saw him in Berlin; sometimes in the Reichstag, where he attended the Morocco debates; sometimes at the flying grounds."

"At the beginning of December he spent a week in Silesia hunting, and at the end of December and the beginning of January he was in Berlin again."

"Between the last named leaves he was prostrated by illness, which not only confined him to his room, but to bed over the Christmas holidays. The illness could not have been very

grave, otherwise the Berlin newspapers would not so soon have been able to report that he was dedicating himself to winter sports in the Tiergarten."

"At the end of January the crown prince again came to Berlin to participate in the court festivities and those connected with the Kaiser's birthday, and christening of his own son. When these were over he took himself to Switzerland, where in company with his gracious consort he threw himself into the joys of the sleigh and ski with his accustomed zeal."

"That he remained in Switzerland longer than he intended is due to the injury he received at ice hockey."

"On March 6 the Danzig Hussars saw their commander again and were at last able to give the winter ball, which they had postponed on account of the crown prince's many prolonged absences."

Man Records His Robberies

Thief Arrested After School Girl Had Trained Him—Left Odd Book in Looted Home.

New York.—Marie Rohn, 14, after attending Normal school, returned to her home on the fifth floor of 440 East 156th street. She was climbing the stairs when a man dashed past her, almost knocking her down, and fled to the street. The girl found that the door of her home had been jimmied and the place robbed. She ran to the street, caught sight of the man half a block away and trailed him along Elton avenue to 150th street. There she saw Policeman Frazier and told him her story.

The policeman grabbed the man and took him to the Morrisania police station. He said he was George Burke, but refused to give his address. According to the police he admitted robbing the Rohns, after several pieces of jewelry found in his

TRAVELS FAR FOR HIS BRIDE

Nine Thousand Miles Somewhat of a Journey, but Not Too Long for Norton Johnson.

Los Angeles.—Coming 9,000 miles to claim his bride, Norton Johnson arrived in Los Angeles. He reached San Francisco on the steamer Tahiti from New Zealand, and was met by his fiancée, Miss Helen Wells, and her father, Arthur G. Wells, general manager of the Santa Fe, who had journeyed north in their private car for that purpose.

Mr. Johnson, who is a geological expert, is general superintendent of the Consolidated Goldfields of New Zealand, and after the wedding ceremony took his bride for a wedding trip through the east, and will sail the first of May for their future home in New Zealand.

Mr. Johnson is the son of Mr. and Mrs. George Johnson of Hinghamton, N. Y. Miss Wells was graduated from the Marlborough and afterward attended Wells college.

Boys Find Eighty Diamonds

Costly Gems Had Been Swept Out With the Rubbish When Jewelry Store Was Cleaned.

Philadelphia.—The discovery of diamonds in an ash barrel in front of Charles Kranich's jewelry store, 2466 Kensington avenue, raised a disturbance that suggested the scene of a "lucky strike" in the gold fields of Alaska.

Mrs. Kranich saw a number of boys struggling around the barrel, each endeavoring to dig his hands into the contents. These were joined presently by a dozen men, who also entered the strange scramble. Alarmed, Mrs. Kranich called her daughter, Mrs. Lloyd Brooks, and her sister-in-law, Miss Bessie Kranich, who learned that the men and boys were digging for gems in the ash barrel. Mrs. Kranich went into the street, and on looking closer discovered that her boys had found diamonds that her husband had procured for his Christmas stock.

Meanwhile the Eighteenth district police heard of the unusual occurrence, and Lieutenant Keith dispatched six policemen in civilian clothes to endeavor to recover the diamonds. The result of this was that before night fifty-four of the missing stones had been found and returned to their owner; about twenty were still missing.

When Mr. Kranich learned of the incident he said that he and two young men were gathering up rubbish in the store in the morning, and it was into this that the diamonds must have accidentally dropped. Shortly before cleaning the store, he said, he had taken from his safe a leather case containing a number of diamonds, which he said, he either examined or else showed to a customer. The stones were sorted, those of each kind being wrapped separately in its own paper. Thus the diamonds were probably not noticeable and dropped into the rubbish that was being swept from the store and later dumped into the ash barrel.

Prodigy at Eight.

London.—Barely eight years old, a boy named Solomon, son of a poor East end tailor, made his public debut in the Albert hall before an immense audience and proved himself a wonderful pianist.

It was only a few weeks ago that the boy was discovered, and he had never played on a grand piano before. So marvelous is his talent that a few days ago he played privately before the king and queen at Buckingham palace.

Miss Altman, with her family, occupies part of a two-family house, at 675 Snediker avenue, which is owned by Mogal. He lives in the other part. When the Altmans moved into the house eight months ago Miss Altman found a half-starved dog penned in the back yard. She learned the dog belonged to Mogal, but she took care of it and kept it. Mogal had another dog.

One of the dogs contracted the bad habit of scratching the varnish off the hall doors, and Mogal places the blame on the fox terrier. Miss Altman said it might just as well have

been Mogal's hound. Mogal didn't think so, and at 6:30 o'clock in the morning he walked quietly into Miss Altman's bedroom, looking for the terrier. It was under the bed, and when he yanked it out by a leg the dog set up a howl. Miss Altman awoke suddenly and was terrified at finding a man in her room.

The fox terrier escaped for a time and Mogal chased it around the house until he finally cornered it. Then, with a club, it is alleged, he broke one of its hind legs and then he pitched it out the second-story window.

Miss Altman called Officer McMahon of the S. P. C. A., who killed the dog. Then she got out a warrant for Mogal.

To determine whether it was Miss Altman's dog or the one belonging to Mogal that scratched the doors, Magistrate Voorhees said he would have detectives measure the claw marks. They may be able then to say which dog was guilty.

Kicks Girl's Dog Around

Landlord Says Tenant's Cur, Not His Own, Scratched Door—Court to Decide.

New York.—Kicks! Miss Blanche Altman's fox terrier awoke got Mike Mogal before Magistrate Voorhees in the New Jersey avenue court on a charge of cruelty to animals. He was paroled, pending trial.

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When Neptune Interfered

By R. S. PHILLIPS

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Ames rowed with angry vigor, reaching the island in record time. The little flag, fluttering gaily where her finger had tied it, irritated him, and he put out a hasty hand.

"You need not dishonor 'Old Glory' because you are angry with me!" The words were like water on hot iron, whetting his anger.

"I did not expect to find you here."

"I came for the same reason—and I came first. I have been here more than two hours."

Prior possession and an invitation to vacate present surroundings were voiced by the trite phrases. Ames glanced at her quickly, and anger flared more potently. She was so alluringly beautiful, here in the glare of autumn sunshine and turbulent sea, bringing home the knowledge that it was genuine loveliness, not an effect of shaded lights and attractive gowning.

"You do not own this island," he protested, stubbornly.

"Show your deed," she retorted, coldly. "This island was hung up by the sea, and I have never heard of any one disputing the claim of the waters. Perhaps mine was an appeal to chivalrous courtesy that does not exist—in you at least."

Crimson touched the healthy bronze of his cheeks. "Look here, Tris, I didn't come here to continue our quarrel."

"Which implies that I did. I didn't dream you were coming here, of all places. However, it is large enough. But I am going back. The tide will be coming in soon, and that shrinks the area."

The slender white figure vanished out of the line of present vision, and



Only the Tiny Tree Showed.

Ames did not turn to look after her. A recently returned betrothal ring forbade active interest.

After an adequate interval of waiting he strolled toward the other beach. When he raised moody eyes from the pebble he was kicking lazily they encountered a white figure silhouetted against the blue. Far out on the water a canoe rocked provocatively.

"Not fastened properly," he observed. "Girls are apt to be careless about such details. You must let me take you back to the hotel, Miss West."

Her smile was icily sweet. "When you do go, you might tell Mr. Hammond I am here and want him to come for me."

Under the goad of Hammond's name (it had decorated Miss West's dancing program many times last night) he became vehement.

"You are going back with me!" "I am going back with whom I please—or stay here indefinitely," was the decided answer.

She looked so small and dainty, to be carried for tenderly instead of hurling defiance. Ames smiled sadly, but the returned ring also forbade prolonged contention. He bowed gravely and left her.

The tide was coming in. Mild whitcaps on the bay attested this. But it seemed marvelous that any trick of the tide could have brought a canoe to the right about in such a short time. Then came acute realization.

It was his canoe. A quick solution of this problem was necessary. The shore was beyond swimming distance. Only he and Tris West frequented this tiny strip of sun swept land, cast up by an ocean volcano in idle sport. It would be cold when the September sun had vanished. Her gown was summer white, the waist filmy. Rusefully he reflected that a thin serge coat afforded little protection against chilling breezes.

Consultation being imperative, he went grimly back to the other shore. "My canoe has gone, too," he ventured.

"Not fastened properly," was the Sphinx-like reply.

"But, Miss West, this is serious. There is no time for quibbling. We are marooned on this little island."

"I expected to be," came the calm answer. But she shivered slightly, and he knew that she was troubled.

"You must take my coat," he said, gently plucking it about her shoulders. It was shaken off impatiently.

"I have not asked your assistance."

"You must have it, Tris. You are getting chilled. And you must talk over the situation. Look at the tide. I have never seen it so aggressive."

Another fact intruded suddenly. It was not only in the tide. Usually high and dry places on the small margin of shore were being submerged. The island was sinking!

Out of the shining white caps bobbed her canoe, the influx of water bringing it gradually nearer. It was their only hope. He kicked off his light shoes and went gamely out to capture it.

"Bob! Oh, Bob! Come back! You will be drowned!"

Every muscle tense, the girl raced to the edge of the encroaching waves.

Then the reason of this apparent madness came like a blinding flash. The waters were coming to claim their own!

"It's all my fault—mine," she whispered, with a dry sob. "If I hadn't been so stubborn and foolish he would have managed long ago."

Aeons, apparently, she stood staring her eyes into the dazzle of the sunset, while a determined swimmer drew nearer and nearer the elusive canoe. When he finally grasped it, an ardent cheer rose to her lips. Closer came the crawling death, but that was not in her mind. How pretty, how thrilling, was the slight misunderstanding that loomed so large an hour ago!

The breeze had freshened so much it was not possible for Ames, expert canoeist that he was, to gain the dry interior of his rocking captive. But fortune favored—now he was swimming with the tide. When he dared waste strength on a shoreward glance he saw the girl waving his coat with gay encouragement. She was standing beside the lone tree the island boasted. The waters had risen perilously far. Ames forced strength into his waning stroke.

Eager hands met his, and together, without loss of time or words, they rushed the canoe to the other shore, where they would not have to fight the tide. The tiny tree was all afoam.

"Splendidly done, Bob!"

Her voice was full of courage. Not a trace of the tears Ames had feared to see dimmed her eyes.

The next few moments marked desperate effort. Some fiend seemed to be struggling to draw the frail canoe back to destruction. But it fought with youth and youth's ardent desire to live. As the small craft sped out beyond the danger line, the rose glory of a dying sun touched sea and sky.

"Look!" cried the girl suddenly. "Our island! The island we loved! It is gone!"

Ames turned the canoe a trifle and looked back. Only the tiny tree showed bravely above the wash of water. Then he looked at the girl. Somehow the fact that her eyes were shining with tears did not trouble him now. On both faces was the solemn awe of those who have faced death and live to remember.

He put out his hand. The gesture held an infinite meaning, beyond all Love's honeyed phrases.

"Tris, you've got to marry me. After this, I cannot live without you."

A rainbow smile eclipsed the tears. With due regard for the dangers they had passed, she laid small, confident fingers in his broad palm.

"The difficulty," Bob, oh, Bob, darling!—the difficulty would be to keep me from marrying you," she replied.

SMILES, VIRTUE AND GUILT

Smart Young Man of Big Business Has No Personality or Soul, Says Writer.

Modernity has bred a kind of person who is equivalent to that virtuous village boy of pious reading appreciated so affectionately by the Sun in a recent reminiscence. I mean the bright young man of big business. He is the "grocer's boy" of these large times, faithful, indefatigable, cheerful, clever, sociable, pleasant, tedious. He is forever on time or ahead of time. His elders by one generation have somewhat of a military silence, will and poise about them. Forbidding they are; they can frown. A certain contempt is their pride. But the bright, rising young man of big business is chiefly smiles, virtue and really guile. He is a conservative in his 20s, which means that he is a knave; worse, indeed, than the fool who is radical in his age.

I detect that smart young man of big business. He has no personality whatever, no soul. He is bred of system and method and science, all of which shrewd things were invented by his savage elders to keep those inferior ones down. But now the rising young men are bringing every slavish characteristic up with them into power. I cannot see that it is going to happen to them. Those trade union bludionists will smash much of the pretty mechanics on the predominant just now in capital. The ruffians have personality at any rate.

A wisest state would see to it that its universities bred gentlemen for leisure, shrewd men for activity and powerfully willed masters for power. That thin and base ideal efficiency is hatching a race of simpsions.—H. R. in New York Sun.

Apropos. Apropos of the various present-day arguments for the recall of bad judges, a Chicagoan said the other day:

"I once heard Colonel Roosevelt tell a story about a frontier magistrate—a story that reminded him of a certain type of high court judge."

"The magistrate had in hand a hatchet stealing case. It was proved that the prisoner had stolen the hatchet, but the magistrate, search his law books as he would, could find no precedent for hatchet stealing."

"Prisoner at the bar," he said at last, glaring up at the accused man from over his spectacles, "I can't locate nothing in the books relat'n' to hatchet stealing, though I find here a case of ax and a case of knife. The defendant was convicted and got heavy punishment. Prisoner at the bar, you have had a narrow escape. You may now go, and let this be a warn'n' to you."

Forgiving Spirit. Tommy, who has a quick temper, got mad at his seven-year-old playmate, Katherine, the other day, called her a name and went home. That night Katherine's mother saw her laboriously printing something in a note book.

"What are you doing, Katherine?" she asked. "I'm writing down every time Tommy gets mad at me," was the reply, "and when he has got mad twelve or fifteen times I'm going to get mad at him."

Old Timers. "Do those stories that statesmen tell give the public an impression that he is a man of mentality?"

"I think so," replied Senator Sargent, "even if they do not indicate a ready wit they show a long memory."